

AMENDMENTS TO THE DRAWINGS

Figure 2 is labeled as Prior Art.

Figure 4 is added.

Attachment: Replacement Sheet(s)
New Sheet

REMARKS

Summary Of The Office Action & Formalities

Status of Claims

Claims 1-16 are all the claims pending in the application. By this Amendment, Applicant is adding new claims 17 and 18. No new matter is added.

Drawings

The drawings are objected to by the Examiner for the reasons set forth at pages 2-3 of the Office Action.

Applicant is amending Fig. 2 and adding new Fig. 4.¹ Applicant further submits that the original drawings as filed do in fact show the central spray chamber between the spray orifice and the insert. For example, when properly understood, Fig. 1 depicts a horizontal section through the spray profile and Fig. 3 depicts a horizontal section through the expulsion channel, which is upstream of the spray profile. As described in the specification:

In the invention, the fluid spray head includes an expulsion channel 5 that is provided with a spray orifice 1 and with a spray profile 10 that is disposed upstream from said spray orifice 1. The spray profile 10 is formed in the end wall of the spray head, and, in known manner, comprises preferably non-radial spray channels 11 leading into a central spray chamber 12 disposed directly upstream from said spray orifice 1. The channels can be three in number, as shown in FIG. 1, but some other configuration can be envisaged. An insert 20, that is preferably solid and of simple shape similar to a rod, is provided in said expulsion channel 5 so as to limit the dead volume and form a cover for said spray profile 10. The insert 20 is inserted through the inside of the head and thus forms an internal nozzle which, in contrast to an external nozzle fastened on the outside of the head, does not risk being expelled during

¹ New Fig. 4 depicts a vertical section of a prior art spray head as shown in U.S. patent 4,801,093 to the same Assignee.

actuation. Thus, the fluid flowing along the expulsion channel 5 and around said insert via the access 15 reaches the non-radial channels 11 in front of the front face of said insert. The fluid then swirls into the spray chamber 12 before being expelled through the spray orifice 1 in the form of spray. The device of the invention is thus formed of only two parts, an external part forming the head, and an internal part forming the insert.

Specification at [0022]. *See also* Applicant's specification at paragraph [0002].

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Applicant's amendment to Claims 1 and 11 which adds the limitations "and wherein the central spray chamber is between the spray orifice of the spray head and the insert" is not supported by the originally filed disclosure. Examiner cannot find any reference to these claim limitations and causes the specification to lack antecedence.

Office Action at pages 3-4.

Applicant respectfully disagrees and refers the Examiner to the explicit disclosure in paragraphs [0002] and [0022] noted above. For clarification, Applicant is amending paragraph [0022] to add the parenthetical "i.e., base surface."

Claim Rejections - § 112

Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Examiner can find no recitation support for the new amended claim limitations for Claims 1 and 11 ("and wherein the central spray chamber is between the spray orifice of the spray head and the insert") within the specification. The specific

orientation is not disclosed nor is it shown within the drawings (Figure 1 and 3).

Office Action at page 4.

Again, Applicant respectfully disagrees and refers the Examiner to the explicit disclosure in paragraphs [0002] and [0022] noted above. Indeed, it is clearly described that on the one hand, the central spray chamber (12) is directly upstream the orifice (1), and that on the other hand, the insert (20) forms the base surface of the spray profile.

Art Rejections

1. Claims 1, 2, 4, 8, 10-14 and 16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Garrigou (US 3,625,437).

2. Claims 3, 5-7, 9 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Garrigou (US 3,625,437) in view of Ennis, III (US 4,923,448).

Applicant respectfully traverses.

Claim Rejections - 35 U.S.C. § 102

1. Claims 1, 2, 4, 8, 10-14 And 16 In View Of Garrigou (US 3,625,437).

In rejecting claims 1, 2, 4, 8, 10-14 and 16 in view of Garrigou (US 3,625,437), the grounds of rejection state:

In regard to Claims 1, 8, 10, 11 and 12, Garrigou (3,625,437) teaches a fluid dispenser device that includes a fluid spray head manufactured from a common mold (Column 1, Lines 30-68) where the spray head (2) has an expulsion channel (13) with a spray orifice (14) and a spray profile (15,16,17) are formed in an end wall of the spray head (2) where non radial spray channels (17) are formed to the swirling chamber (Column 3, line 46-55) which opens to a spray chamber (16) that is disposed upstream of the spray orifice (14) where an insert (9) **forms an internal nozzle (see Figure 1 and 3 where 14 sits over 9 to form internal nozzle within the insert and forms a base surface for the spray profile. The internal nozzle that is created is**

configured along with the spray head with an upstream opening in the spray head) and is introduced through the inside of the spray head (2) being disposed in the expulsion channel (13) so as to form a cover for the spray profile (15,16,17) where the central axis (X) of the insert (9) is substantially identical to the central axis (Y) of the expulsion channel (13) (Figure 4) and where the expulsion channel (13) further has a centering means (19) for centering the insert (9) within the spray head (2) that is located in the expulsion channel (13) for centering the insert (9) where the centering means (19) is in close proximity to the spray profile (15,16,17) and the central spray chamber (16) is between the spray orifice (14) of the spray head (2) and the insert (9).

In regard to Claim 2, 13 and 14, Garrigou also teaches where the centering means (19) has at least one projection (see plurality of centering means 19 in Figure 4) that totals 4 projections which inherently includes more than 3 and less than 3 projections where the diameter of the inscribed circle (see Figure 4) defined by the projections (19-centering means) is substantially identical to the diameter of the insert (9) where the projections extend from an inside wall of the expulsion channel (13) and abut the insert (9) to substantially align the central axis of the insert (9) with the central axis of the expulsion channel (13).

In regard to Claim 4 and 16, Garrigou further teaches where the accesses of the expulsion channel (13) of the feed channel (17) are formed between the projections (Centering means projections 19-Figure 4).

Office Action at pages 5-6.

Regarding Applicant's arguments, the Examiner states:

Rejection under 35 USC § 102

Applicant's arguments filed 02/08/2007 have been fully considered but they are not persuasive. Applicant assertion that the insert (9) of Garrigou is not an internal nozzle is unfounded. A viewing of Figure 1, 2 and 4 clearly depict the insert (9) being internal and bounded by the spray head (2). The expulsion pressure that develops during actuation does not subject the insert (9) from being projected out of the spray head. The insert of Garrigou is not at further risk of expulsion due to being retained by the end wall of the spray head's end wall. The spray head (2) and insert (9) are also shown in Garrigou (see Figures 1 and 2) as separate elements and the spray orifice is in the spray head. Thus, Applicant's arguments

are refuted in view of the revised office action (see above).
Examiner maintains the rejection to Claims 1, 2, 4, 8, 10-14 and 16
held under 35 USC § 102 (b) to Garrigou (US 3,625,437).

Office Action at page 9.

The grounds of rejection do not correctly describe the disclosure in Garrigou. In particular, in Garrigou, the spray profile is *not* formed in an end wall of the spray head (2). Rather, it is clear from Garrigou that the element having reference numeral (2) is a nozzle insert (*see* column 3, lines 31-32) which is inserted from the outside in the spray head (1).

This is an example of what is described in the beginning of the description of Applicant's specification and defined as an "external nozzle" type spray head. The corresponding drawback (nozzle expelled during use) exists in the Garrigou device.

It is well known that in a fluid dispenser, the spray head is assembled on a pump or valve, itself mounted on a reservoir. This is shown in all the prior art documents listed in the description, showing external nozzle devices, and also in the internal nozzle devices, e.g. the Valois patent US 4,801,093.

In Garrigou, it is explicitly described that the spray head (1) has a recess (3) for receiving "in a known manner" a valve stem (column 3, lines 33-35).

It is thus not proper to give a completely different characterization of Garrigou, with the insert (2) becoming the spray head, and a part of the spray head (1) becoming the insert. This would be entirely inconsistent and contrary to how one skilled in the art would characterize such elements.

In view of at least the foregoing, the Examiner is kindly requested to reconsider and withdraw the rejection and allow the claims to issue.

New Claims


For additional claim coverage merited by the scope of the invention, Applicant is adding new claims 17 and 18, which are allowable at least by reason of their respective dependencies.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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